Overview

The OCIO is taking an industry-standards based approach based on the following industry best practices:

- **NASCIO Enterprise Architecture Practices**. NASCIO (www.nascio.org) defines enterprise architecture as:

  Enterprise Architecture is a management engineering discipline that presents a holistic, comprehensive view of the enterprise including strategic planning, organization, relationships, business process, information, and operations.

  NASCIO provides the context of achieving enterprise architecture in a government context. NASCIO includes achieving interoperability across all levels of government and lines of business. The NASCIO Enterprise Architecture Maturity Model defines the key architecture disciplines:

  - ***Architecture Planning*** ensures the program is managed to assure the goals for implementation are realistic and achievable and the program is kept within scope.
  - ***Architecture Framework*** consists of the processes, templates and forms used by those documenting the operations and standards of the organization.
  - ***Architecture Blueprint*** refers to the completed documents that are prepared using the Architecture Framework processes, templates and forms. The Blueprint refers to the documented products and standards, together with their detail, classifications, impact statements, and migration strategies.
  - ***Communication*** is the element that ensures standards and processes are established and readily available to team members for reference and use. As an organization changes and programs evolve the continued communication ensures the EA program remains vital and operates optimally.
  - ***Compliance*** must be reviewed periodically to be sure the business and IT programs and services are operating effectively.
  - ***Integration*** addresses the ability of the various entities (internal and external to the organization) to coordinate their efforts to the greatest benefit of the organization. This is a key factor, as great efficiencies are gained by identifying similar functions or operations, both inside and outside an organization.
  - ***Involvement*** must be part of an EA program. Without the support of managers and employees who are expected to utilize and follow the defined process, the program is sure to fail.

- **Federal Enterprise Architecture**. The FEA architecture framework is used to classify all architecture artifacts. The FEA is constructed through a collection of interrelated "reference models" designed to facilitate cross-agency analysis and the identification of duplicative investments, gaps, and opportunities for collaboration within and across Federal Agencies. See the Federal Enterprise Architecture website (http://www.whitehouse.gov/omb/egov/a-2-EAModelsNEW2.html) for more information.

Enterprise Architecture Artifacts

Overview

The enterprise architecture artifacts are classified and attributed using a number of dimensions:

- **Artifact Type** identifies the role of the artifact within the enterprise architecture:

Artifact Type	Description
Best Practice	Trends and approaches that have successfully provided services and information over time.
Blueprint	The dynamic, detailed information about a specific enterprise that is captured using standardized, structured processes and templates (the framework).
Framework	The combination of the structure, processes, and templates that facilitate the documentation of the architecture in a systematic and disciplined manner. User of the framework guides the documentation of the enterprise detail, which becomes the architecture blueprint.
Guideline	General statements of direction or desired future state. Guidelines are highly recommended, but they are not mandated.
Legislation	Compliance criteria legislated that can be changed only by changing the law. There are numerous types of legislation including, but not limited to, policy, executive order, code of state, federal regulation, or statue.
Principle	A statement of preferred direction or practice. Principles constitute the rules, constraints and behaviors that a bureau, agency, organization will abide by in its daily activities over a long period of time. Principles are business practices and approaches that the organization chooses to institutionalize to better provide services and information.
Product Component	Include the protocols, products (families) and configurations.
Standards	Mandated statements. A variance must be granted to excuse compliance with an existing standard. More than one standard may exist to allow flexibility in the architecture blueprint.
System	A set of different elements so connected or related as to perform a unique function not performable by the elements alone.
Template	The empty form that serves as a guide for documenting the architecture detail. The resulting dynamic content captured using the template is referred to as the "blueprint" and ultimately resides in an Enterprise Architecture repository.

Artifact Type	Description
Trend	Emerging patterns of operation within the business world that are impacting how services and information will be provided. Trends include governmental trends as well as architecture specific trends, i.e. technology information management trends, etc.

- **Reference Model Classification** identify how assets are classified using the FEA reference models.

- **Lifecycle Classification describe the classification established by the governance organization:**

Lifecycle	Description
Sunset	Artifacts in use but do not conform to the stated Business or Technology Architecture Blueprints. The sunset artifacts will have a date of discontinuance identified, indicating the date that the artifacts will no longer be acceptable for use within the architecture.
Twilight	Artifacts in use but do not conform to the stated Business Drivers or Technology Architecture Blueprints. The artifacts have no date of discontinuance identified. These artifacts should not be used to develop new applications. Extensive modifications to these systems should be reviewed to determine if the system should be redeployed completely using newer technology.
Current	Artifacts having met the requirements of the enterprise architecture. These represent the recommended artifacts that should be used in deployment of technology solutions.
Emerging	Artifacts that have potential to become current architecture blueprint components. While identified as Emerging, artifacts should be used only in pilot or test environments and under highly controlled regulations. After sufficient testing, these artifacts may become current or may be identified non-compliant or non-functional in the organization's environment.

Business Reference Model

The Business Reference Model (BRM) is a function-driven framework for describing the business operations independent of the organizations that perform the. The Business Reference Model (CalBRM) provides an organized, hierarchical construct for describing the day-to-day business operations.

Data Reference Model

The Data Reference Model (CalDRM) is a business-driven, functional model for classifying data and information and reveals how it supports the business of government within California. The model provides a common, consistent way of categorizing and describing data. This helps facilitate data sharing and integration, and describes the interactions and exchanges necessary between state, local, federal government agencies, and various customers, constituencies, and business partners.

Service Component Reference Model

The Service Component Reference Model (SRM) is a business-driven, functional framework that classifies Service Components with respect to how they support business and/or performance

objectives. The SRM is structured across horizontal service areas that, independent of the business functions, can provide a leveragable foundation for reuse of applications, application capabilities, components, and business services.

Unique ID	Topic	Description
SRM 1	Customer Services	Defines the set of capabilities directly related to an internal or external customer, the business's interaction with the customer, and the customer-driven activities or functions. The Customer Services Domain represents those capabilities and services at the front end of a business and interface at varying levels with the customer.
SRM 1.1	*Customer Relationship Management*	*Capabilities are used to plan, schedule, and control the activities between the customer and the enterprise, both before and after a product or service is offered.*
SRM 1.2	*Customer Preferences*	*Capabilities allow customers to change a user interface and the way data is displayed.*
SRM 1.3	*Customer Initiated Assistance*	*Capabilities allow customers to proactively seek assistance and service from an organization.*
SRM 2	Process Automation Services	Defines the set of capabilities supporting the automation of process and management activities to assist in effectively managing the business. The Process Automation Services domain represents those services and capabilities serving to automate and facilitate the processes associated with tracking, monitoring, and maintaining liaison throughout the business cycle of an organization.
SRM 2.1	*Tracking & Workflow*	*Capabilities provide automatic monitoring and routing of documents to the users responsible for working on them to support each step of the business cycle.*
SRM 2.2	*Routing & Scheduling*	*Capabilities provide automatic directing, assignment, or allocation of time for a particular action or event.*
SRM 3	*Business Management Services*	*Defines the set of capabilities supporting the management of business functions and organizational activities to maintain continuity across the business and value-chain participants. Represents those capabilities and services necessary for projects, programs and planning within a business operation to be successfully managed.*
SRM 3.1	*Management of Process*	*Capabilities regulate the activities surrounding the business cycle of an organization.*
SRM 3.1.1	Change Management	Defines a set of capabilities to control the process for updates or modifications to the existing documents, software or business processes of an organization (e.g. organizational change management).

Unique ID	Topic	Description
SRM 3.1.2	Configuration Management	Defines the set of capabilities to control the hardware and software environments, as well as documents of an organization.
SRM 3.1.3	Requirements Management	Defines the set of capabilities to gather, analyze and fulfill the needs and prerequisites of an organization's efforts.
SRM 3.1.4	Program/ Project Management	Defines the set of capabilities to manage and control a particular effort of an organization.
SRM 3.1.5	Governance/Policy Management	Defines the set of capabilities to influence and determine decisions, actions, business rules and other matters within an organization.
SRM 3.1.6	Quality Management	Defines the set of capabilities to help determine the level that a product or service satisfies certain requirements.
SRM 3.1.7	Business Rules Management	Defines the set of capabilities to manage the enterprise processes that support an organization and its policies.
SRM 3.1.8	Risk Management	Support the identification and probabilities or chances of hazards as they relate to a task, decision or long-term goal; includes risk assessment and risk mitigation.
SRM 3.2	*Investment Management*	*Capabilities manage the financial assets and capital of an organization.*
SRM 3.2.1	Strategic Planning and Management	Defines the set of capabilities to support the determination of long-term goals and the identification of the best approach for achieving those goals.
SRM 3.2.2	Portfolio Management	Defines the set of capabilities to support the administration of a group of investments held by an organization.
SRM 3.2.3	Performance Management	Defines the set of capabilities to measure the effectiveness of an organizations financial assets and capital.
SRM 3.3	*Organization Management*	*Capabilities support both collaboration and communication within an organization.*
SRM 3.4	*Supply Chain Management*	*Capabilities plan, schedule and control a supply chain and the sequence of organizations and functions to mine, make or assemble materials and products from manufacturer to wholesaler to retailer to consumer.*
SRM 3.4.01	Procurement	Defines the set of capabilities to support the ordering and purchasing of products and services.
SRM 4	*Digital Asset Services*	*Defines the set of capabilities to support the generation, management, and distribution of intellectual capital and electronic media across the business and extended enterprise.*
SRM 4.1	Content Management	Capabilities manage the storage, maintenance and retrieval of documents and information of a system or website.
SRM 4.2	Document Management	Capabilities control the capture and maintenance of an organization's documents and files.
SRM 4.3	Knowledge Management	Capabilities identify, gather and transform documents, reports and other sources into meaningful information.

Unique ID	Topic	Description
SRM 4.4	Records Management	Capabilities store, protect, archive, classify and retire documents and information.
SRM 5	Business Analytical Services	The Business Analytical Services Domain defines the set of capabilities supporting the extraction, aggregation, and presentation of information to facilitate decision analysis and business evaluation.
SRM 5.1	*Analysis and Statistics*	*Capabilities examine business issues, problems and their solutions.*
SRM 5.2	*Visualization*	*Capabilities convert data into graphical or picture form.*
SRM 5.2.4	Mapping/ Geospatial/ Elevation/GPS	Defines the set of capabilities to provide for the representation of position information through the use of attributes such as elevation, latitude, and longitude coordinates.
SRM 5.2.5	Multimedia	Defines the set of capabilities to support the representation of information in more than one form to include text, audio, graphics, animated graphics and full motion video.
SRM 5.2	*Knowledge Discovery*	*Capabilities facilitate the identification of useful information from data.*
SRM 5.4	*Business Intelligence*	*Capabilities provide information pertaining to the history, current status or future projections of an organization.*
SRM 6	Back-Office Services	Defines the set of capabilities supporting the management of enterprise planning and transactional-based functions.
SRM 6.1	Data Management	Defines the set of capabilities that support the usage, processing and general administration of unstructured information.
SRM 6.2	Human Resources	Capabilities provide for the recruitment and management of personnel.
SRM 6.3	Financial Management	Capabilities provide the accounting practices and procedures to allow for the handling of revenues, funding and expenditures.
SRM 6.3.10	Payments/ Settlement	Defines the set of capabilities to support the process of accounts payable.
SRM 6.4	Assets/Materials Management	Capabilities support the acquisition, oversight and tracking of an organization's assets.
SRM 6.5	Development and Integration	Capabilities provide communication between hardware/software applications and the activities associated with deployment of software applications.
SRM 7	Support Services	Defines the set of cross-functional capabilities able to be leveraged independent of Service Domain objective and/or mission.
SRM 7.1	Security Management	Capabilities protect an organization's information and information systems.

Unique ID	Topic	Description
SRM 7.1.01	Identification and Automation	Defines the set of capabilities to support obtaining information about those parties attempting to log on to a system or application for security purposes and the validation of those users. Also referred to as Identity Management.
SRM 7.1.02	Access Control	Defines the set of capabilities to support the management of permissions for logging onto a computer, application, service, or network; includes user management and role/privilege management.
SRM 7.1.03	Cryptography	Defines the set of capabilities to support the use and management of ciphers, including encryption and decryption processes, to ensure confidentiality and integrity of data.
SRM 7.1.04	Digital Signature Management	Defines the set of capabilities to support the use and management of electronic signatures to support authentication and data integrity; includes public key infrastructure (PKI).
SRM 7.1.05	Intrusion Prevention	Defines the set of capabilities to perform penetration testing and other measures to prevent unauthorized access to a government information system.
SRM 7.1.06	Intrusion Detection	Defines the set of capabilities to support the detection of unauthorized access to a government information system.
SRM 7.1.07	Audit Trail Capture and Analysis	Defines the set of capabilities to support the identification and monitoring of activities within an application, system, or network.
SRM 7.1.08	Certification and Accreditation	Defines the set of capabilities to support the certification and accreditation (C&A) of federal information systems, as described in NIST SP800-37.
SRM 7.1.09	FISMA Management and Reporting	Defines the set of capabilities to support management and reporting of compliance with the Federal Information Security Management Act of 2002. Privacy is a key aspect of FISMA.
SRM 7.1.10	Virus Protection	Defines the set of capabilities to provide anti-virus service to prevent, detect, and remediate infection of government computing assets.
SRM 7.2	Collaboration	Capabilities allow for the concurrent, simultaneous communication and sharing of content, schedules, messages and ideas within an organization.
SRM 7.3	Search	Capabilities provide for the probing and lookup of specific data from a data source.
SRM 7.4	Communication	Capabilities transmit data, messages and information in multiple formats and protocols.
SRM 7.5	Systems Management	Capabilities support the administration and upkeep of an organization's technology assets, including the hardware, software, infrastructure, licenses, and components that comprise those assets.

Unique ID	Topic	Description
SRM 7.6	Forms Management	Capabilities support the creation, modification, and usage of physical or electronic documents used to capture information within the business cycle.

Technical Reference Model

The Technical Reference Model (TRM) provides a foundation to categorize the standards, specifications, and technologies to support the construction, delivery, and exchange of business and application components (Service Components) that may be used and leveraged in a Component-Based or Service-Oriented Architecture. The TRM unifies existing Agency TRMs and E-Gov guidance by providing a foundation to advance the re-use of technology and component services from a government-wide perspective.

Unique ID	Topic	Description
TRM 1	Service Access and Delivery	Defines the collection of Access and Delivery Channels that will be used to leverage the Service Component, and the legislative requirements that govern its use and interaction.
TRM 1.1	Access Channels	Define the interface between an application and its users, whether it is a browser, personal digital assistant or other medium.
TRM 1.1.1	Web Browser	Define the program that serves as your front end to the World Wide Web on the Internet. In order to view a site, you type its address (URL) into the browser's location field.
TRM 1.1.2	Wireless/PDA	Define the technologies that use transmission via the airwaves. Personal Digital Assistant (PDA) is a handheld computer that serves as an organizer for personal information. It generally includes, at a minimum, a name and address database, to-do list and note taker.
TRM 1.1.3	Collaboration/ Communications	Define the forms of electronic exchange of messages, documents, or other information. Electronic communication provides efficiency through expedited time of delivery.
TRM 1.1.4	Other Electronic Channels	Define the other various mediums of information exchange and interface between a user and an application.
TRM 1.2	Delivery Channels	Define the level of access to applications and systems based upon the type of network used to deliver them.
TRM 1.2,1	Internet	A worldwide system of computer networks in which users at any one computer can, if they have permission, get information from any other computer.
TRM 1.2,2	Intranet	A private network that is contained within an enterprise. It may consist of many interlinked local area networks and is used to share company information and resources among employees.
TRM 1.2,3	Extranet	A private network that uses the Internet protocol and the public telecommunication system to securely share part of a businesss information or operations with suppliers, vendors, partners, customers, or other businesses. An extranet can be viewed as part of a company's intranet that is extended to users outside the company.
TRM 1.2,4	Peer to Peer (P2P)	A class of applications that operate outside the DNS system, have significant or total autonomy from central servers, and take advantage of resources available on the Internet.

Unique ID	Topic	Description
TRM 1.2,5	Virtual Private Network (VPN)	A private data network that makes use of the public telecommunication infrastructure, maintaining privacy through the use of a tunneling protocol and security procedures.
TRM 1.3	Service Requirements	Define the necessary aspects of an application, system or service to include legislative, performance, and hosting.
TRM 1.3.1	Legislative / Compliance	Defines the prerequisites that an application, system or service must have mandated by congress (e.g. ADA) or governing bodies.
TRM 1.3.2	Authentication; Single Sign-On (SSO)	Refers to a method that provides users with the ability to login one time, getting authenticated access to all their applications and resources.
TRM 1.3.3	Hosting	Refers to the service provider who manages and provides availability to a web site or application, often bound to a Service Level Agreement (SLA). The Hosting entity generally maintains a server farm with network support, power backup, fault tolerance, load-balancing, and storage backup.
TRM 1.4	Service Transport	Defines the end to end management of the communications session to include the access and delivery protocols.
TRM 1.4.1	Supporting Network Services	Protocols that define the format and structure of data and information that is either accessed from a directory or exchanged through communications.
TRM 1.4.2	Service Transport	Protocols that define the format and structure of data and information that is either accessed from a directory or exchanged through communications.
TRM 2	Platform and Infrastructure Service	Defines the collection of platforms, hardware and infrastructure specifications that enable Component Based Architectures and Service Component reuse.
TRM 2.1	Support Platforms	Hardware or software architectures.
TRM 2.1.2	Dependent Platform	Defines the operating systems and programming languages able to execute and run on a specific platform or operating system. A platform is the underlying hardware and software comprising a system.
TRM 2.1.1	Wireless/Mobile	Radio transmission via the airwaves. Various communications techniques are used to provide wireless transmission including infrared "line of sight", cellular, microwave, satellite, packet radio and spread spectrum.
TRM 2.1.3	Independent Platform	Defines the operating systems and programming languages able to execute and run on any platform or operating system. A platform is the underlying hardware and software comprising a system.
TRM 2.2	Software Engineering	Covers the technology associated with building software systems as well as technical solutions supporting management issues, such as testing, modeling and versioning. The TRM is concerned with component technical architecture, not engineering processes.
TRM 2.2.1	Integrated Development Environment (IDE)	This consists of the hardware, software and supporting services that facilitate the development of software applications and systems.
TRM 2.2.2	Software Configuration Management (SCM)	Technology applicable to all aspects of software development from design to delivery specifically focused on the control of all work products and artifacts generated during the development process. Several technical solutions on the market provide the integration of the software configuration management functions.

Unique ID	Topic	Description
TRM 2.2.3	Test Management	Technology which supports the consolidation of all testing activities and results. Test Management activities include test planning, designing (test cases), execution, reporting, code coverage, and heuristic and harness development.
TRM 2.2.4	Modeling	Technology that supports the process of representing entities, data, business logic, and capabilities for aiding in software engineering.
TRM 2.3	Delivery Services (Front-End)	Front-end platforms that provide information to a requesting application. It includes the hardware, operating system, server software, and networking protocols.
TRM 2.3.1	Web Servers	A computer that provides World Wide Web services on the Internet. It includes the hardware, operating system, web server software, TCP/IP protocols and the web site content (web pages). If the web server is used internally and not by the public, it may be known as an "intranet server".
TRM 2.3.2	Media Servers	Provide optimized management of media based files such as audio and video streams and digital images.
TRM 2.3.3	Application Servers	In a three-tier environment, a separate computer (application server) performs the business logic, although some part may still be handled by the users machine. After the Web exploded in the mid 1990s, application servers became Web based.
TRM 2.3.4	Portal Servers	Portals represent focus points for interaction, providing integration and single-source corporate information.
TRM 2.4	Database/Storage	Refers to a collection of programs that enables storage, modification, and extraction of information from a database, and various techniques and devices for storing large amounts of data.
TRM 2.4.1	Database	Refers to a collection of information organized in such a way that a computer program can quickly select desired pieces of data. A database management system (DBMS) is a software application providing management, administration, performance, and analysis tools for databases.
TRM 2.4.2	Storage	Storage devices are designed to provide shared storage access across a network. These devices provide extended storage capabilities to the network with reduced costs compared to traditional file servers.
TRM 2.5	Hardware/ Infrastructure	Defines the physical devices, facilities and standards providing the computing and networking within and between enterprises.
TRM 2.5.1	Servers/Computers	This refers to the various types of programmable machines which are capable of responding to sets of instructions and executing programs.
TRM 2.5.2	Embedded Technology Devices	This refers to the various devices and parts that make up a Server or Computer as well as devices that perform specific functionality outside of a Server or Computer.
TRM 2.5.3	Peripherals	Computer devices that are not part of the essential computer (i.e. the memory and microprocessor). Peripheral devices can be external and internal.
TRM 2.5.4	Wide Area Network (WAN)	A data network typically extending a LAN outside a building or beyond a campus. Typically created by using bridges or routers to connect geographically separated LANs. WANs include commercial or educational dialup networks such as CompuServe, InterNet and BITNET.

Unique ID	Topic	Description
TRM 2.5.5	Local Area Network (LAN)	A network that interconnects devices over a geographically small area, typically in one building or a part of a building. The most popular LAN type is Ethernet. LANs allow the sharing of resources and the exchange of both video and data.
TRM 2.5.6	Network Devices / Standards	A group of stations (computers, telephones, or other devices) connected by communications facilities for exchanging information. Connection can be permanent, via cable, or temporary, through telephone or other communications links. The transmission medium can be physical (i.e. fiber optic cable) or wireless (i.e. satellite).
TRM 2.5.7	Video Conferencing	Communication across long distances with video and audio content that may also include graphics and data exchange. Digital video transmission systems typically consist of camera, codec (coder-decoder), network access equipment, network, and audio system.
TRM 3	Component Framework	Defines the underlying foundation and technical elements by which Service Components are built, integrated and deployed across Component-Based and Distributed Architectures. Consists of the design of application or system software that incorporates interfaces for interacting with other programs and for future flexibility and expandability. This includes modules that are designed to interoperate with each other at runtime.
TRM 3.1	Security	Security defines the methods of protecting information and information systems from unauthorized access, use, disclosure, disruption, modification, or destruction in order to provide integrity, confidentiality and availability. Biometrics, two factor identification, encryption, and technologies based on the NIST FIPS-140 standards are evolving areas of focus.
TRM 3.1.1	Certificate / Digital Signature	Software used by a certification authority (CA) to issue digital certificates and secure access to information. The evolution of Public Key Infrastructure (PKI) is based on the verification and authentication of the parties involved in information exchange.
TRM 3.1.2	Supporting Security Services	Consist of the different protocols and components to be used in addition to certificates and digital signatures.
TRM 3.2	User Presentation/ Interface	Defines the connection between the user and the software, consisting of the presentation that is physically represented on the screen.
TRM 3.2.1	Static Display	Static Display consists of the software protocols that are used to create a predefined, unchanging graphical interface between the user and the software.
TRM 3.2.2	Dynamic Server-Side Display	Consists of the software that is used to create graphical user interfaces with the ability to change while the program is running.
TRM 3.2.3	Content Rendering	Defines the software and protocols used for transforming data for presentation in a graphical user interface.
TRM 3.2.4	Wireless/Mobile/Voice	Consists of the software and protocols used for wireless and voice enabled presentation devices.
TRM 3.3	Business Logic	Defines the software, protocol or method in which business rules are enforced within applications.
TRM 3.3.1	Platform Independent Technologies	Consists of all software languages able to execute and run on any type of operating system or platform.
TRM 3.3.2	Platform Dependent Technologies	Consists of the programming languages and methods for developing software on a specific operating system or platform.
TRM 3.4	Data Interchange	Data Interchange define the methods data is transferred and represented in and between software applications.

Unique ID	Topic	Description
TRM 3.4.1	Data Exchange	Data Exchange is concerned with the sending of data over a communications network and the definition of data communicated from one application to another. Data Exchange provides the communications common denominator between disparate systems.
TRM 3.5	Data Management	Management of all data/information in an organization. It includes data administration, the standards for defining data and the way in which people perceive and use it.
TRM 3.5.1	Database Connectivity	Defines the protocol or method in which an application connects to a data store or data base.
TRM 3.5.2	Reporting & Analytics	Consist of the tools, languages and protocols used to extract data from a data store and process it into useful information.
TRM 4	Service Interface and Integration	Defines the discovery, interaction and communication technologies joining disparate systems and information providers. SOAs leverage and incorporate Service Interface and Integration standards to provide interoperability and scalability.
TRM 4.1	Integration	Defines the software services enabling elements of distributed business applications to interoperate. These elements can share function, content, and communications across heterogeneous computing environments. In particular, service integration offers a set of architecture services such as platform and service location transparency, transaction management, basic messaging between two points, and guaranteed message delivery.
TRM 4.1.1	Middleware	Middleware increases the flexibility, interoperability, and portability of existing infrastructure by linking or gluing" two otherwise separate applications.
TRM 4.1.2	Enterprise Application Integration	Refers to the processes and tools specializing in updating and consolidating applications and data within an enterprise. EAI focuses on leveraging existing legacy applications and data sources so that enterprises can add and migrate to current technologies.
TRM 4.2	Interoperability	Defines the capabilities of discovering and sharing data and services across disparate systems and vendors.
TRM 4.2.1	Data Format/ Classification	Defines the structure of a file. There are hundreds of formats, and every application has many different variations (database, word processing, graphics, executable program, etc.). Each format defines its own layout of the data. The file format for text is the simplest.
TRM 4.2.2	Data Types/ Validation	Refers to specifications used in identifying and affirming common structures and processing rules. This technique is referenced and abstracted from the content document or source data.
TRM 4.2.3	Data Transformation	Data Transformation consists of the protocols and languages that change the presentation of data within a graphical user interface or application.
TRM 4.3	Interface	Defines the capabilities of communicating, transporting and exchanging information through a common dialog or method. Delivery Channels provide the information to reach the intended destination, whereas Interfaces allow the interaction to occur based on a predetermined framework.
TRM 4.3.1	Service Discovery	Defines the method in which applications, systems or web services are registered and discovered.
TRM 4.3.2	Service Description/ Interface	Defines the method for publishing the way in which web services or applications can be used.